

INFLORESCENCE IN *DAMPIERA* SPECIES  
(FAMILY GOODENIACEAE)

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Abstract

The inflorescence of the genus *Dampiera* R. Br. (Goodeniaceae) is basically a panicle in the sense of Troll and Carolin. They are monopodial and monotelic on the main inflorescence, the partial inflorescences are variable (mono or polytelic).

Introduction

Inflorescence of about 6,000 herbarium specimens, belonging to 66 species of genus *Dampiera* R. Br. (Goodeniaceae) were examined. Inflorescence have often been regarded as a useful character in taxonomic work. The arrangements of the flowers are quite stable, they provide valuable criteria for the identification of species. Superficial arrangement of flowers are frequently diagnostic. Troll (1964) provided a general descriptive terminology for the inflorescence and Carolin (1967) applied this to the family Goodeniaceae.

Material and Methods

Specimens of Genus *Dampiera* R. Br. were examined by using an Olympus Stereomicroscope. All the floral parts were studied in detail. The type of partial inflorescence, the position of the sterile bracts, number of cofillorescence in the synflorescence and the number of flowers in the partial inflorescence was recorded. The specimens used for this study were borrowed from the following herbaria, AD, ADW, BM, CANB, CANTB, HAL, K, L, MEL, NSW, NT, and PERTH.

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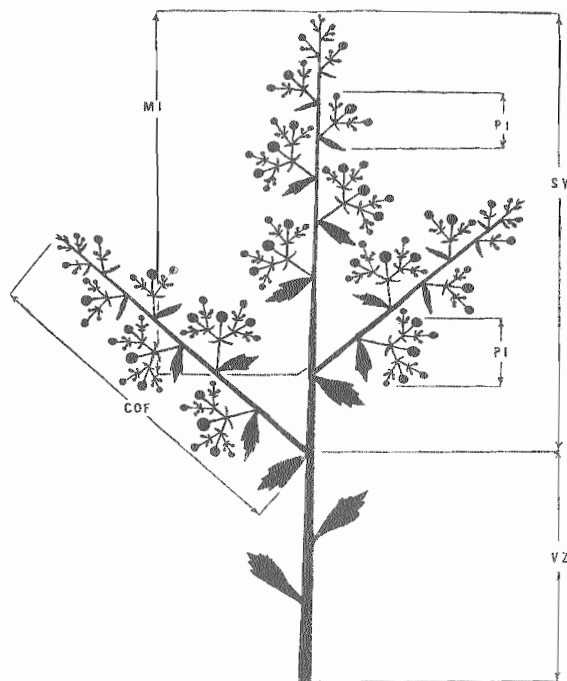


Fig. 1. Diagram to illustrate the use of inflorescence terms.

COF, coflorescence; MI, main inflorescence; PI, partial inflorescence; SY, synflorescence; VZ, vegetative zone.

Most of the terms used here are those suggested by Troll (1964) and Carolin (1967). The terms are defined here and a diagram is provided to illustrate the use of inflorescence terms, (Fig. 1).

- Synflorescence:** The entire inflorescence of the main axis.
- Main inflorescence:** The inflorescence present above the coflorescence but including the partial inflorescences.
- Coflorescence:** The branches at the base of the main inflorescence which repeat the form of the main inflorescence.
- Partial inflorescence:** A solitary flower or a group of flowers present at each node of the main inflorescence or the coflorescence.
- Vegetative zone:** The zone of the axis which does not produce flowers or partial inflorescence at each node.
- Monotelic:** An inflorescence with a terminal flower to every shoot.
- Monopodial:** An inflorescence in which a main axis continues its line of growth for more than two internodes.

- Sympodial: An inflorescence in which a main axis continues its line of growth for only two internodes.
- Dichasial: The axis producing two lateral flowers opposite each other; the lateral branches in their turn behave in the same manner (or as monochasia).
- Monochasial: The axis producing only one lateral branch at a time, the lateral and succeeding branches again produce only one branch at a time like the primary one.
- Panicle: Determinate or indeterminate monopodial inflorescence with pedicellate flowers and the basal partial inflorescences, at least monopodial.
- Spike: A monopodial inflorescence with sessile flowers.

### Observation and Result

The inflorescence of the genus *Dampiera* is basically a panicle in the sense of Troll (1964) and Carolin (1967). They are monopodial and monotelic on the main inflorescence, the partial inflorescences are variable (mono or polytelic). Flowers are mostly pedicellate except a few species of section *Linschotenia* and section *Cephalantha*, in which the flowers are mostly sessile and arranged in a spike or in a loose head. The number of the flowers in the partial inflorescence varies. The species of section *Linschotenia* usually have one or two flowers in the partial inflorescence where upto 46 flowers may be found in that of *D. eriocephala*, for detail see Table 1.

Table 1. Inflorescence in *Dampiera* species.

Name of the species	partial inflorescence	Position of the sterile bracts	No. of coflorescence in the synflorescence	No. of flower in the partial inflorescence
Sect. <i>Camptospora</i>				
<i>Dampiera alata</i>	MP	A	0-3	3-5
<i>D. angulata</i>	MP-S	A	0	1-3
<i>D. carinata</i>	MP	A	4-6	3-7
<i>D. coronata</i>	MP-S	A	0	1-3
<i>D. deltoidea</i>	MP-S	A	0	1-3
<i>D. heteroptera</i>	MP	A	0	9-11
<i>D. lindleyi</i>	MP	A	0	3-8
<i>D. sacculata</i>	PM-S	A	0	1-3

## Sect. Dicoelia

<i>Dampiera decurrens</i>	DI-MP-S	A	3-4	1-14
<i>D. fasciculata</i>	MP-S	B	0-2	1-7
<i>D. fusca</i>	MP-S	B	0	1-5
<i>D. galbraithiana</i>	MP-S	A	0	1-5
<i>D. glabrescens</i>	MP	A	0	3-5
<i>D. leptoclada</i>	MP-S	A	0-5	1-3
<i>D. latealata</i>	MP-S	A	0	1-11
<i>D. loranthifolia</i>	MP-S	B	0	1-4
<i>D. obliqua</i>	MP-S	A	0	1-8
<i>D. parvifolia</i>	MP	B	0-6	2-4
<i>D. sericantha</i>	MP-S	A	1-2	1-4
<i>D. stricta</i>	MP-S	A	0-3	1-5
<i>D. sylvestris</i>	MP	A	0	3-7
<i>D. trigona</i>	MP-S	M	0	1-3
<i>D. triloba</i>	MP	A	0	4-7

## Sect. Dampiera

<i>Dampiera adpressa</i>	MP	B	0	3-8
<i>D. altissima</i>	MP	A	0	4-7
<i>D. fitzgereldiana</i>	S-MP-S	B	0	1-3
<i>D. diversifolia</i>	MP	B	0	2-4
<i>D. dysantha</i>	MP-S	B	0	1-7
<i>D. eriantha</i>	MP	B	0	3-6
<i>D. ferruginea</i>	MP-S	A	0	1-3
<i>D. haematotricha</i>	MP-S	B	0	1-13
<i>D. hederacea</i>	MP	A	0-3	2-5
<i>D. incana</i>	MP	A	0-4	2-12
<i>D. lanceolata</i>	MP	A (rarely B)	0	2-8
<i>D. lavandulacea</i>	MP-S	B	0-4	1-3
<i>D. linearis</i>	MP-S	B, M	0	1-6
<i>D. luteiflora</i>	MP-S	A (rarely M)	1-4	1-10
<i>D. marifolia</i>	MP-S	A	0	1-3
<i>D. oligophylla</i>	MP-S	B (rarely M)	0	1-4
<i>D. pedunculata</i>	MP-S	B	0	1-4
<i>D. pritzelii</i>	S	B	0	1
<i>D. purpurea</i>	MP	A	0	2-14
<i>D. rodwayana</i>	MP-S	B	0	1-5
<i>D. orchardii</i>	S	B	0-3	1
<i>D. rosmarinifolia</i>	MP-S	M	0	1-3

<i>D. roycei</i>	MP-S	M	0	1-2
<i>D. salehae</i>	S-MP-S	B, M	0	1-4
<i>D. scaevolina</i>	MP	B	0	2-5
<i>D. stenophylla</i>	MP-S	B	0	1-3
<i>D. tenuicaulis</i>	MP-S	B	0	1-3
<i>D. tephrea</i>	MP	B	0	4-10
<i>D. tomentosa</i>	MP-S	A	1-3	1-9

Sect. *Linschotenia*

<i>Dampiera atriplicina</i>	S	B	2-5	1
<i>D. candicans</i>	MP-S	A	2-5	1-3
<i>D. cinerea</i>	S	A	1-3	1
<i>D. conospermoides</i>	MP-S	A	2-4	1-6
<i>D. discolor</i>	S	A	1-4	1
<i>D. krausiana</i>	S	A	1-3	1
<i>D. ramosa</i>	MP-DI	A	2-6	1-9
<i>D. spicigera</i>	S	A	1-4	1
<i>D. stenostachya</i>	S	A	1-7	1
<i>D. teres</i>	S	A	1-3	1

Sect. *Cephalantha*

<i>Dampiera dentata</i>	S	A	0-3	1
<i>D. eriocephala</i>	MP-DI-S	A	3-4	3-46
<i>D. plumosa</i>	MP-DI-S	A	1-3	2-7
<i>D. wellsiana</i>	S	A	0-4	1

Abbreviations used: A, absent; B, at the base of peduncle; M, in the middle of the peduncle; MP, monopodial; DI, dichasial; S, sympodial.

The cofillorescence are usually absent in the members of section *Camptospora*, except in *D. alata* and *D. carinata*. On the other hand all the species of sect. *Linschotenia* usually have 1-5 cofillorescences, whereas only a few species of sect. *Dicoelia* and section *Dampiera* have cofillorescences (Table 1).

The partial inflorescence are usually monopodial in most of the species, but in a few species the condensation of the middle of a 2-node partial inflorescence has produced a dichasium, passing into monochasia and eventually solitary flowers towards the top, e.g. *D. decurrens*, *D. plumosa* and *D. eriocephala*.

Sometimes when there are only a few branches of the partial inflorescence, there is a grouping of bracts at the base of peduncle, e.g. *D. pedunculata* or in the middle e.g. *D. pritzelii* or even close to a pseudo-dichasial branching of *D. fusca* (Table 1).

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